

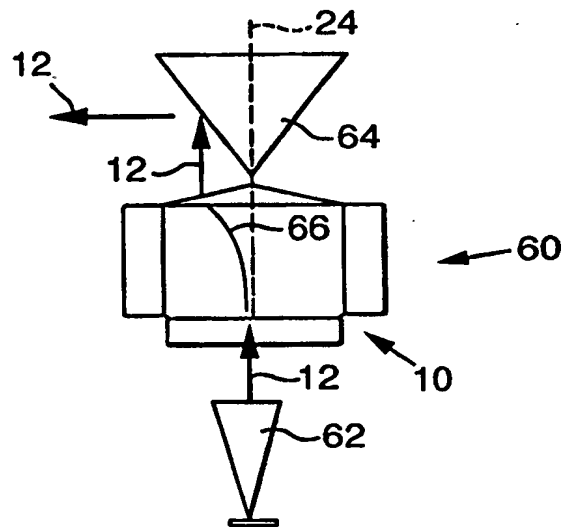


## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<b>(21) International Application Number:</b> PCT/GB99/03782 <b>(22) International Filing Date:</b> 12 November 1999 (12.11.99) <b>(30) Priority Data:</b> 9824800.8 12 November 1998 (12.11.98) GB 9915359.5 2 July 1999 (02.07.99) GB <b>(71) Applicant (for all designated States except US):</b> MARCONI ELECTRONIC SYSTEMS LIMITED [GB/GB]; The Grove, Warren Lane, Stanmore, Middlesex HA7 4LY (GB). <b>(72) Inventor; and</b> <b>(75) Inventor/Applicant (for US only):</b> KUMAR, Balbir [GB/GB]; 70A Eton Avenue, Wembley, London HA0 3AU (GB). <b>(74) Agent:</b> HOSTE, Colin, Francis; GEC Patent Dept., Waterhouse Lane, Chelmsford, Essex, CM1 2QX (GB).	<b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i>	

**(54) Title:** SCANNING OF ELECTROMAGNETIC BEAMS**(57) Abstract**

A magnetic device (10) is provided for scanning a beam (12) of microwave radiation. The device (10) has a magnetisable body (14) having an aperture and an axis (24) perpendicular to the aperture. A plurality of coils (30, 32) located on sides of the body (14) produce a gradient in magnetisation in the body (14) which is rotated about the axis (24) by varying current carried by the coils. Interaction between the beam (12) and the magnetised material of the body (14) causes the beam to be offset from and steered about the axis (24). A conical mirror placed above and facing the aperture causes the beam (12) to be scanned through 360°.



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